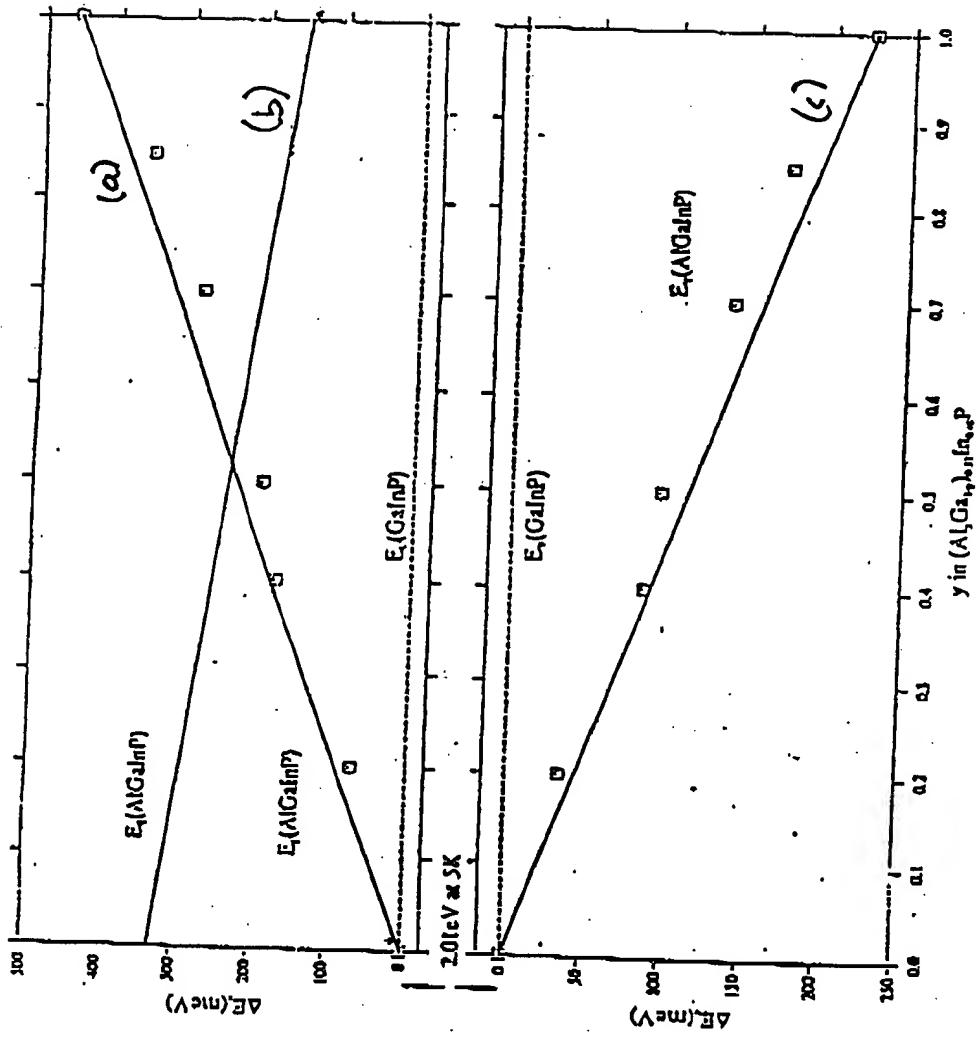


Fig. 1



A diagram of the variation of the $\text{Ga}_{0.52}\text{In}_{0.48}\text{P}/(\text{AlGa})\text{InP}$ heterobarrier height (meV) as a function of aluminum mole fraction in the quaternary alloy assuming a 70:30 band offset ratio.

FIGURE 1

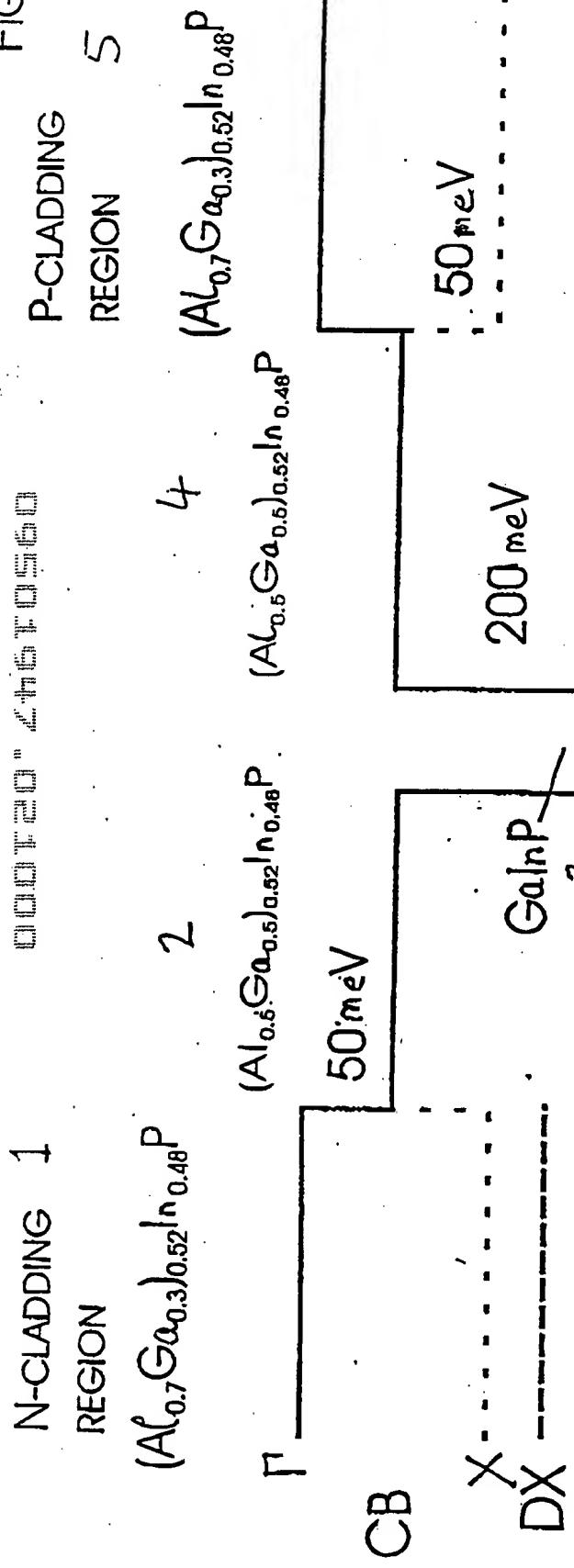


FIG.2

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Fig. 3

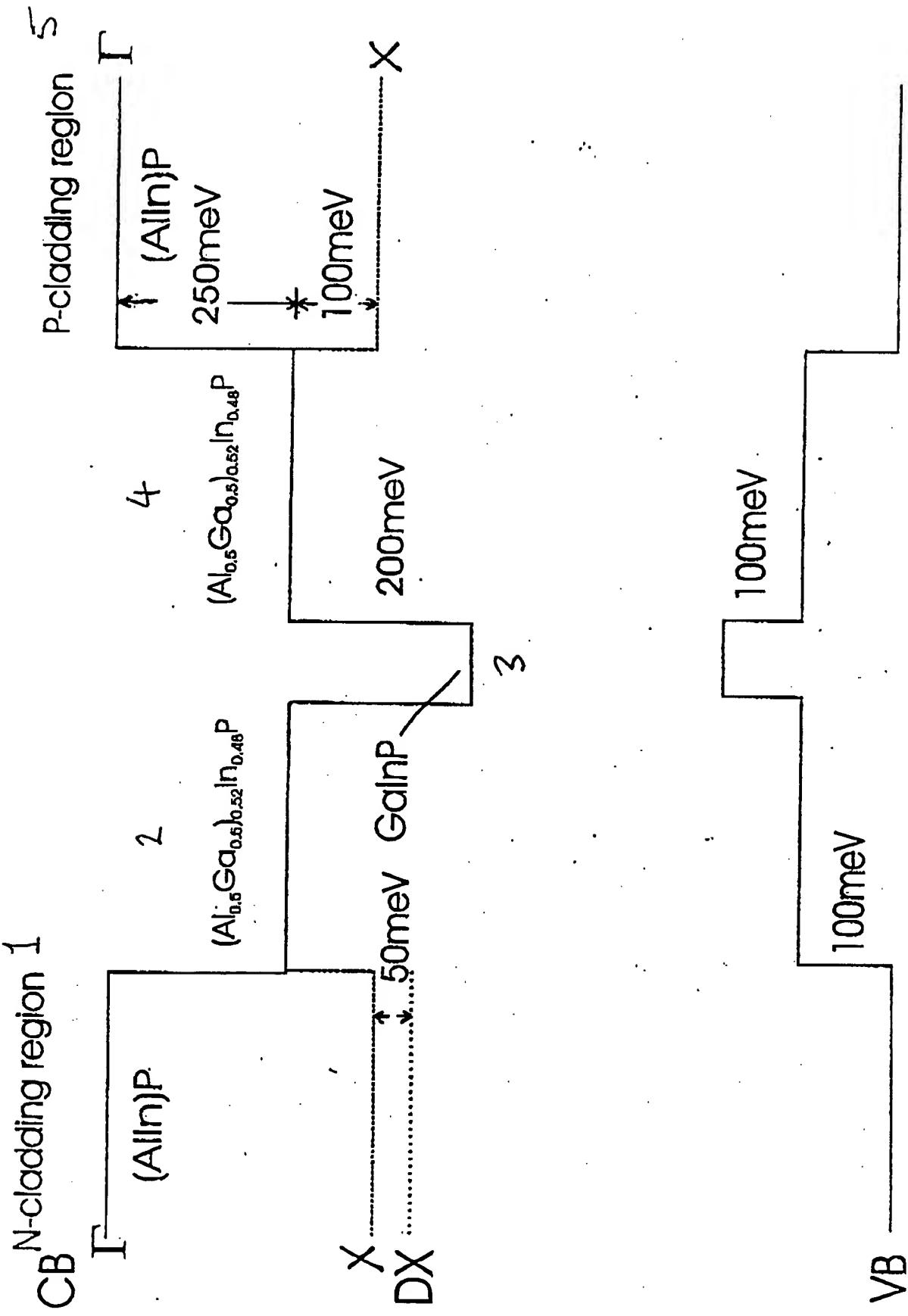


Fig. 4

15

© 0 0 T 2 0 " Z T G T D S G C

11

N-cladding region

16
AlInP

GainP

12

(Al_xG_{1-x}InP)13
500meV

14

GainP

P-cladding region

17

AlInP

GainP

CB

r

VB

Fig.5

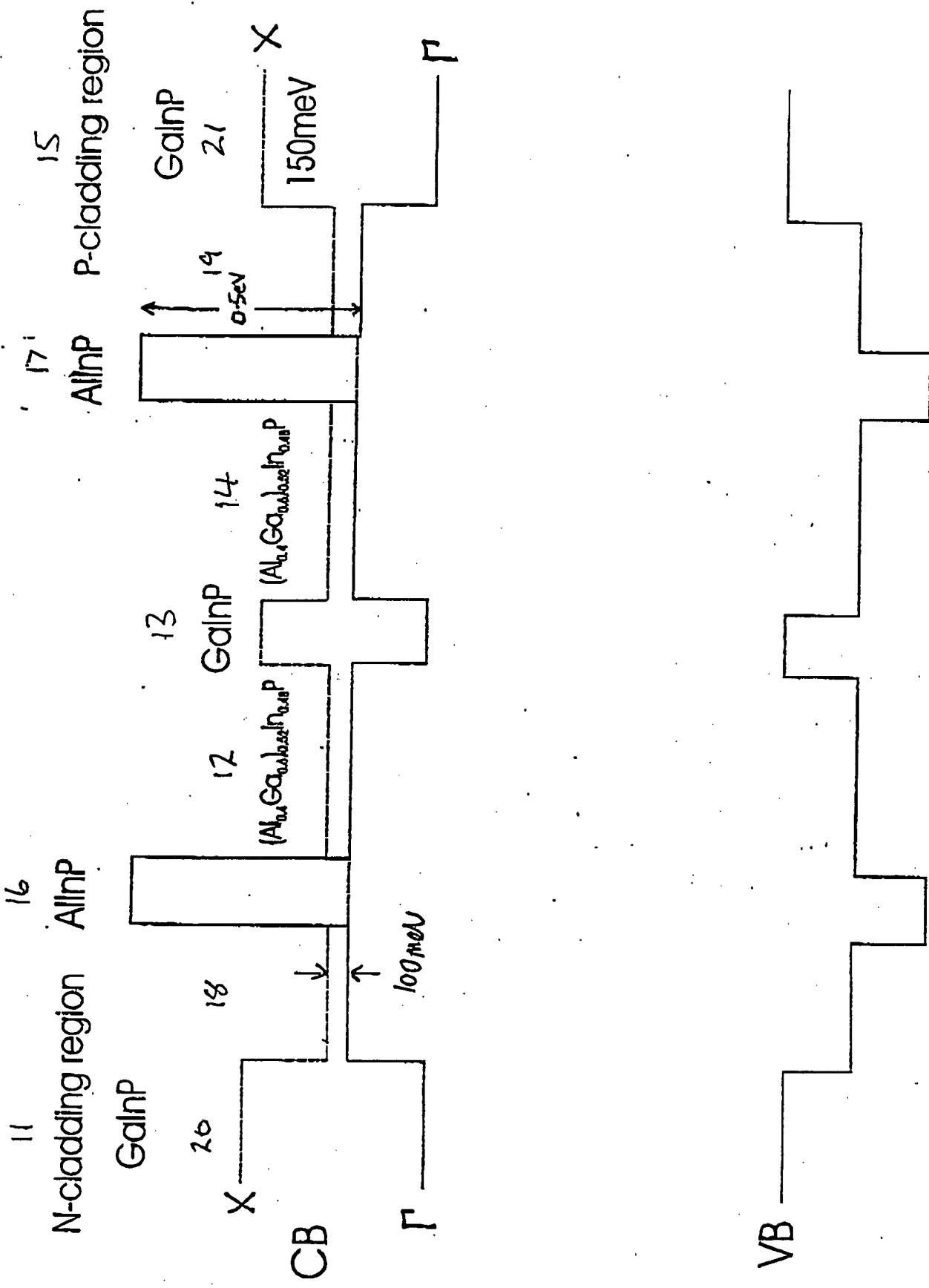
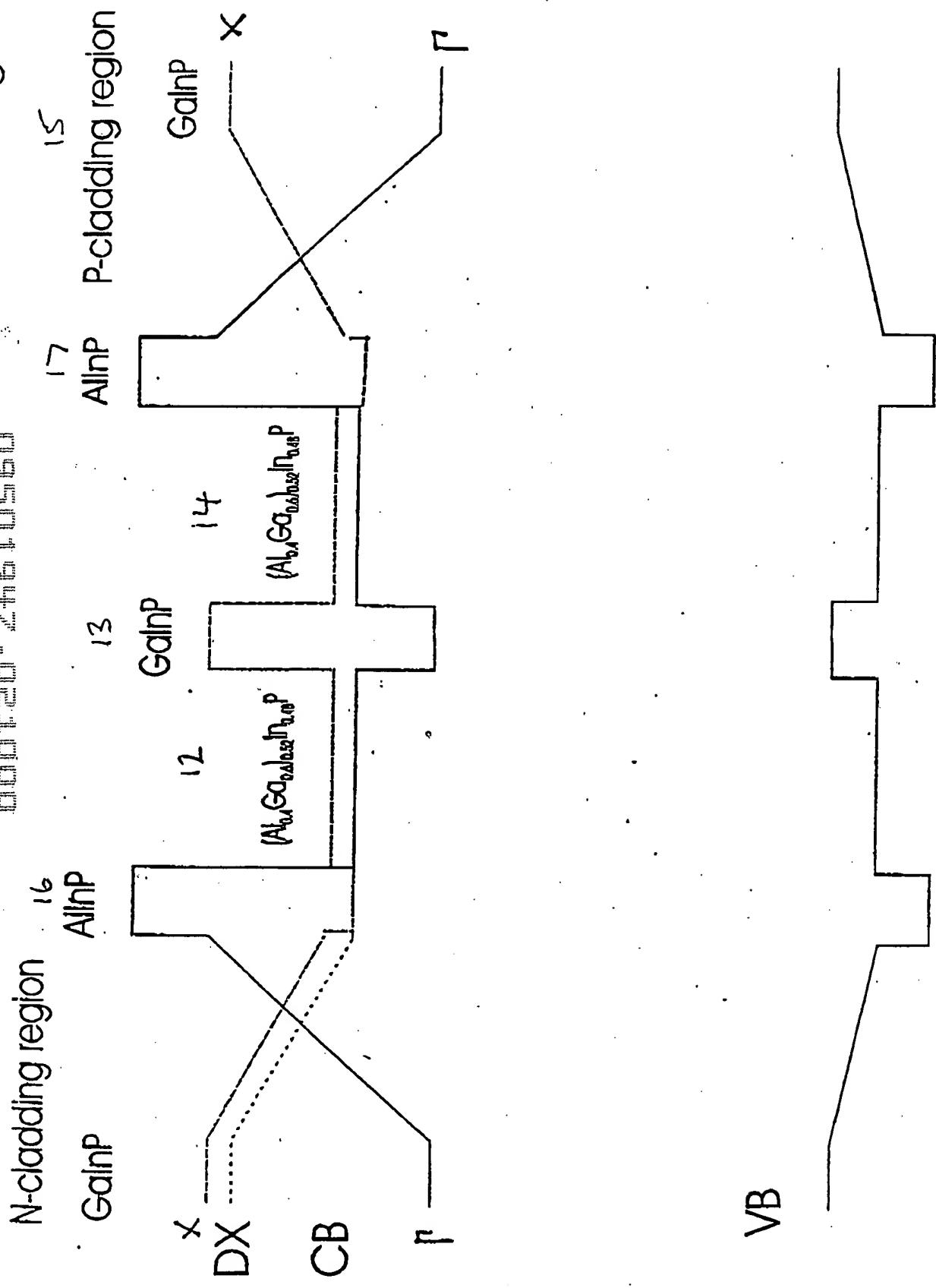


Fig.6

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Fig. 17

GaInP Silicon Doping

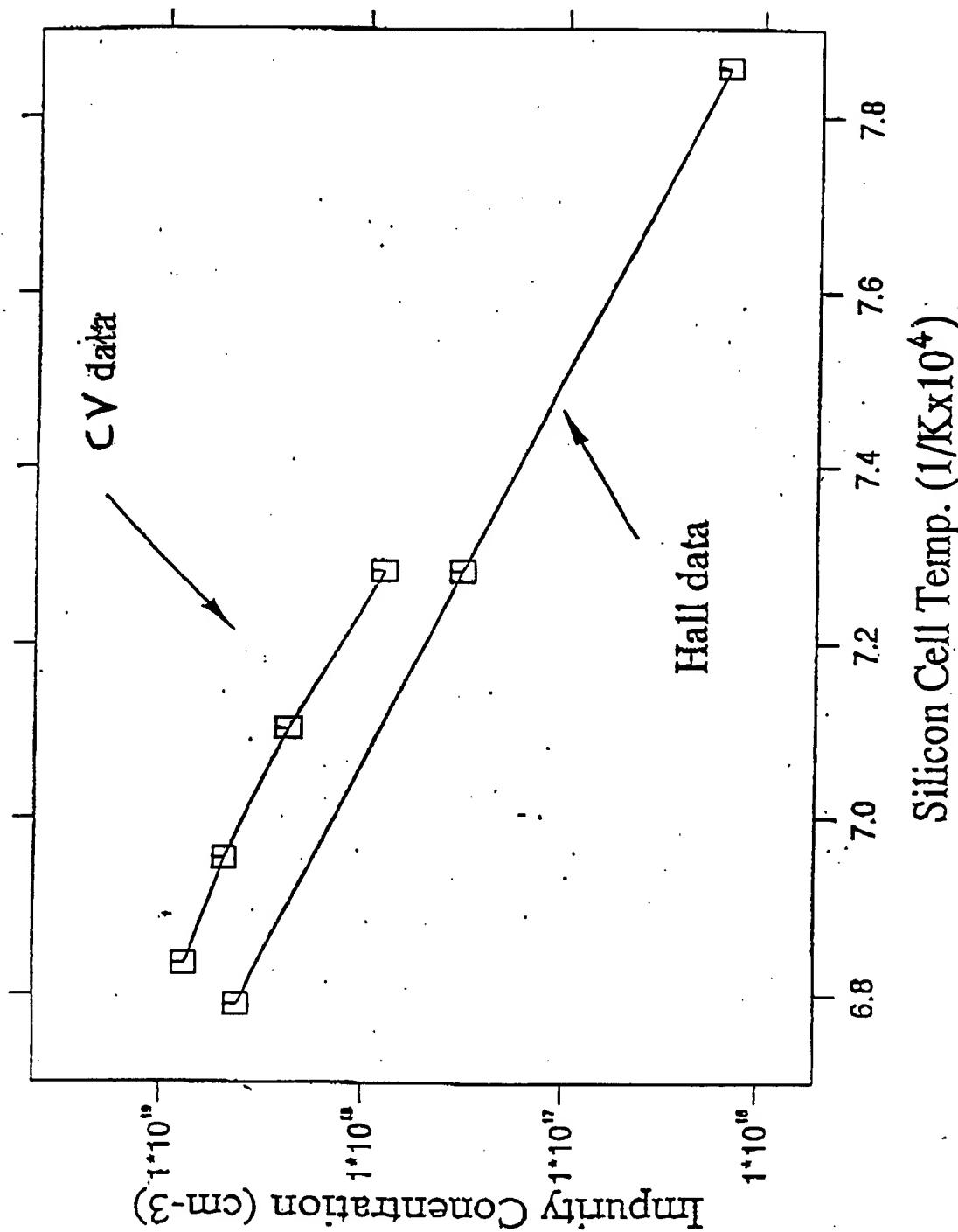


Fig. 8

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AlGaInP ($y=0.7$) Silicon Doping

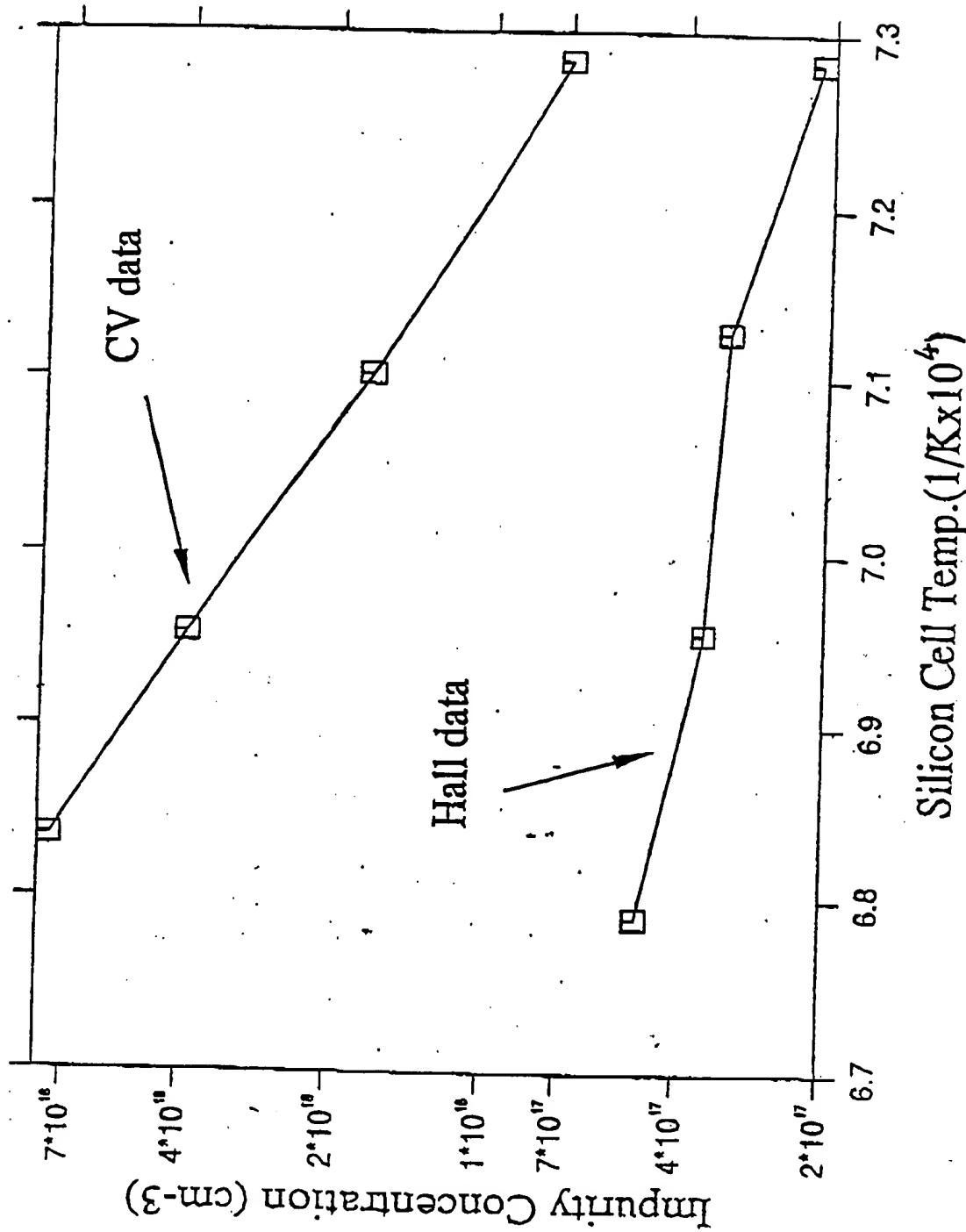


Fig. 8

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Fig 9

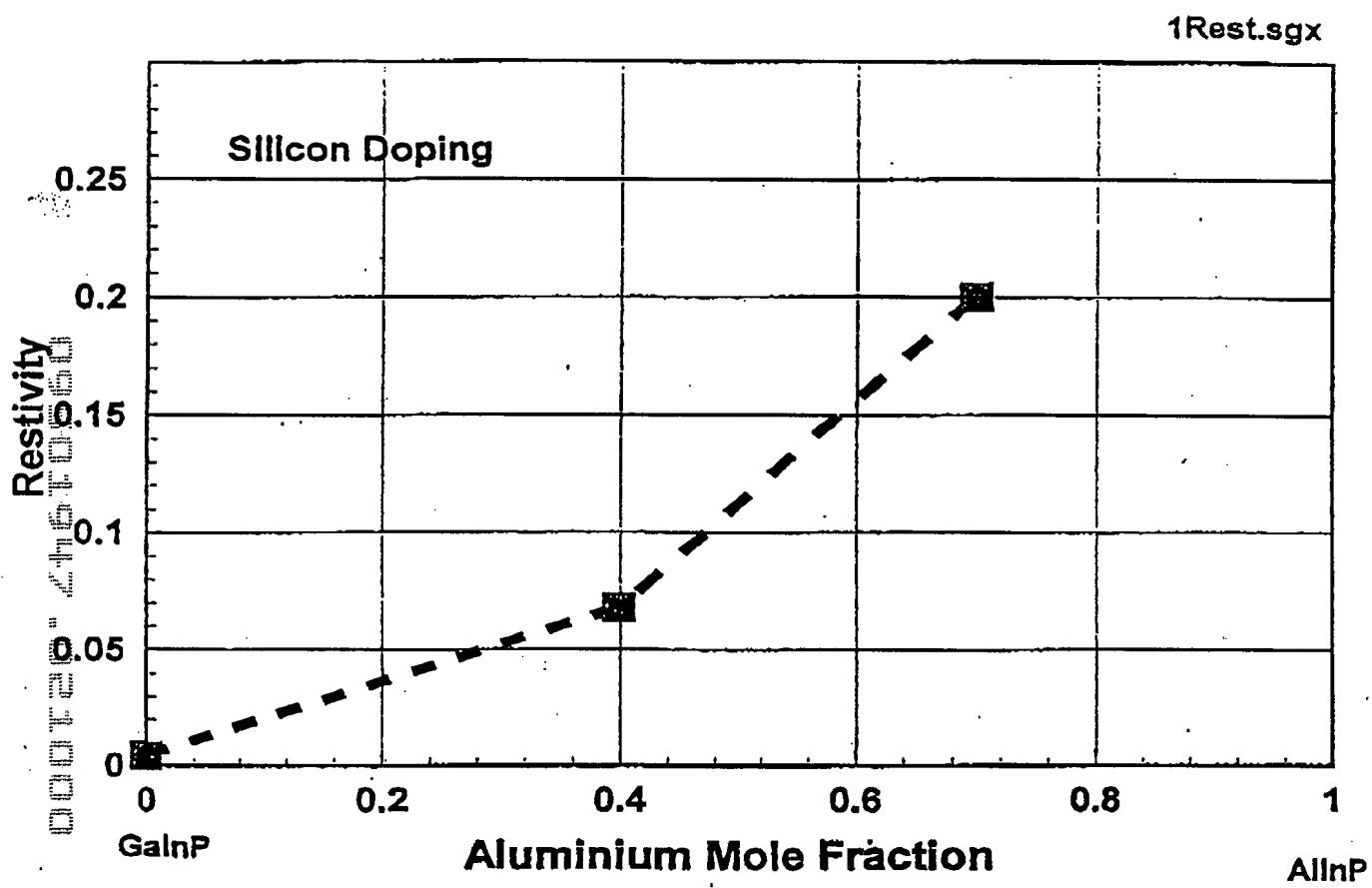
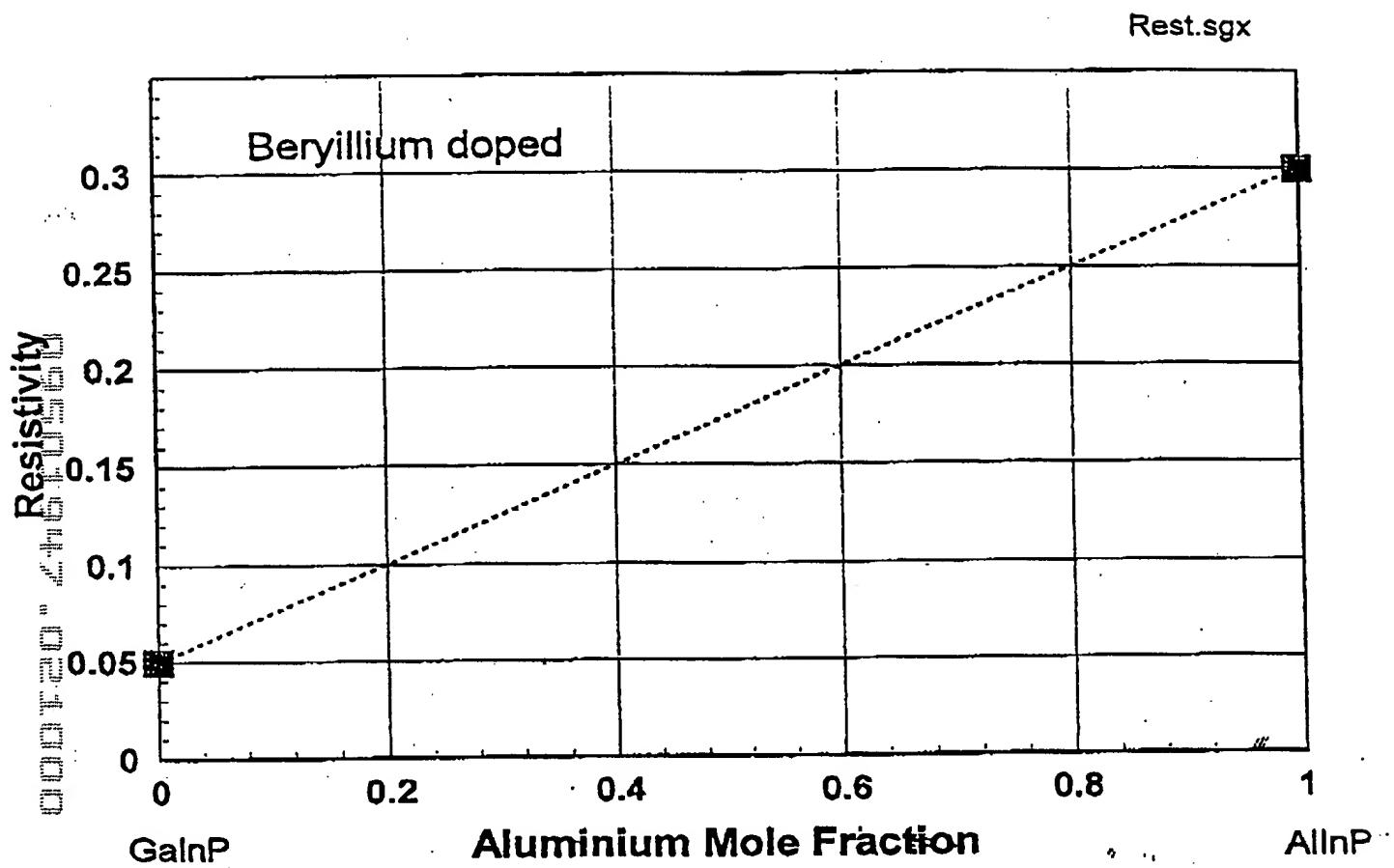


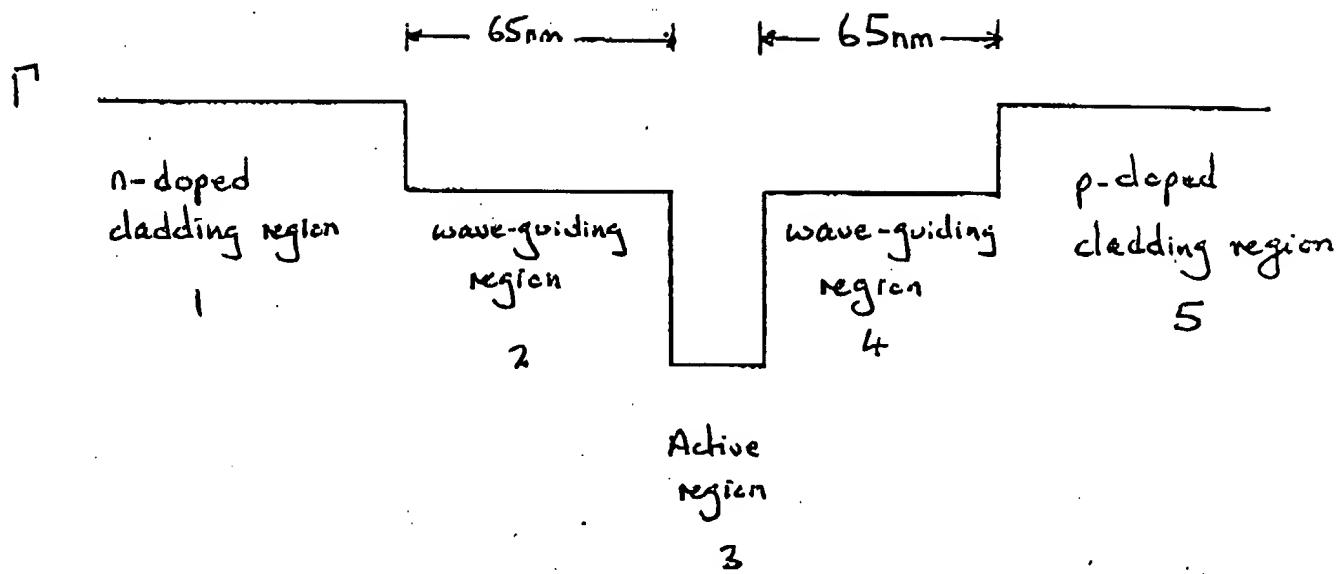
FIG. 9

Figure 10



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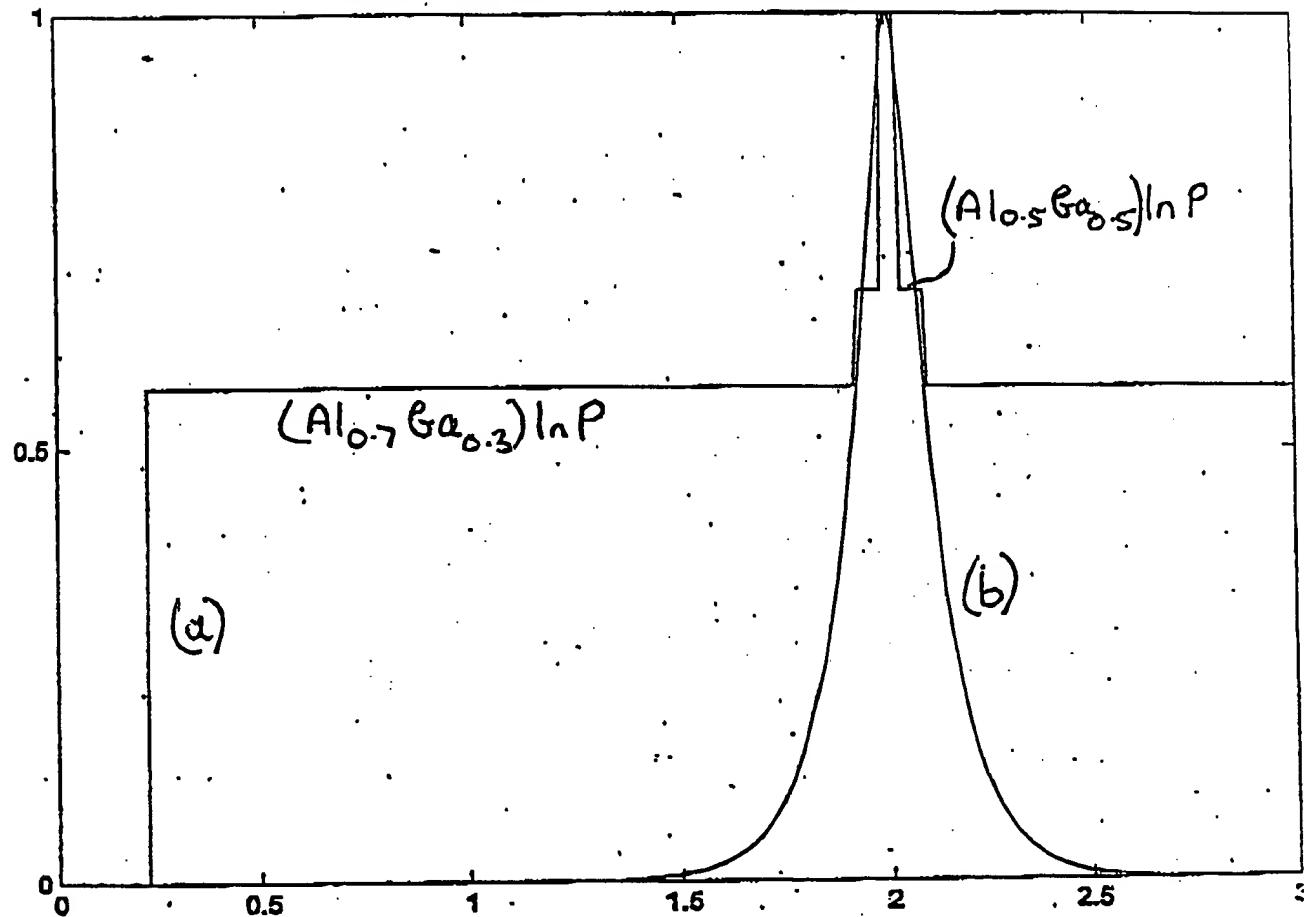
Figure 11(a)



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Figure 11(b)

Interfaces at 0.22171, 0.2171, 0.2672, 0.2672, 0.917



0950139472 002100

Figure 12

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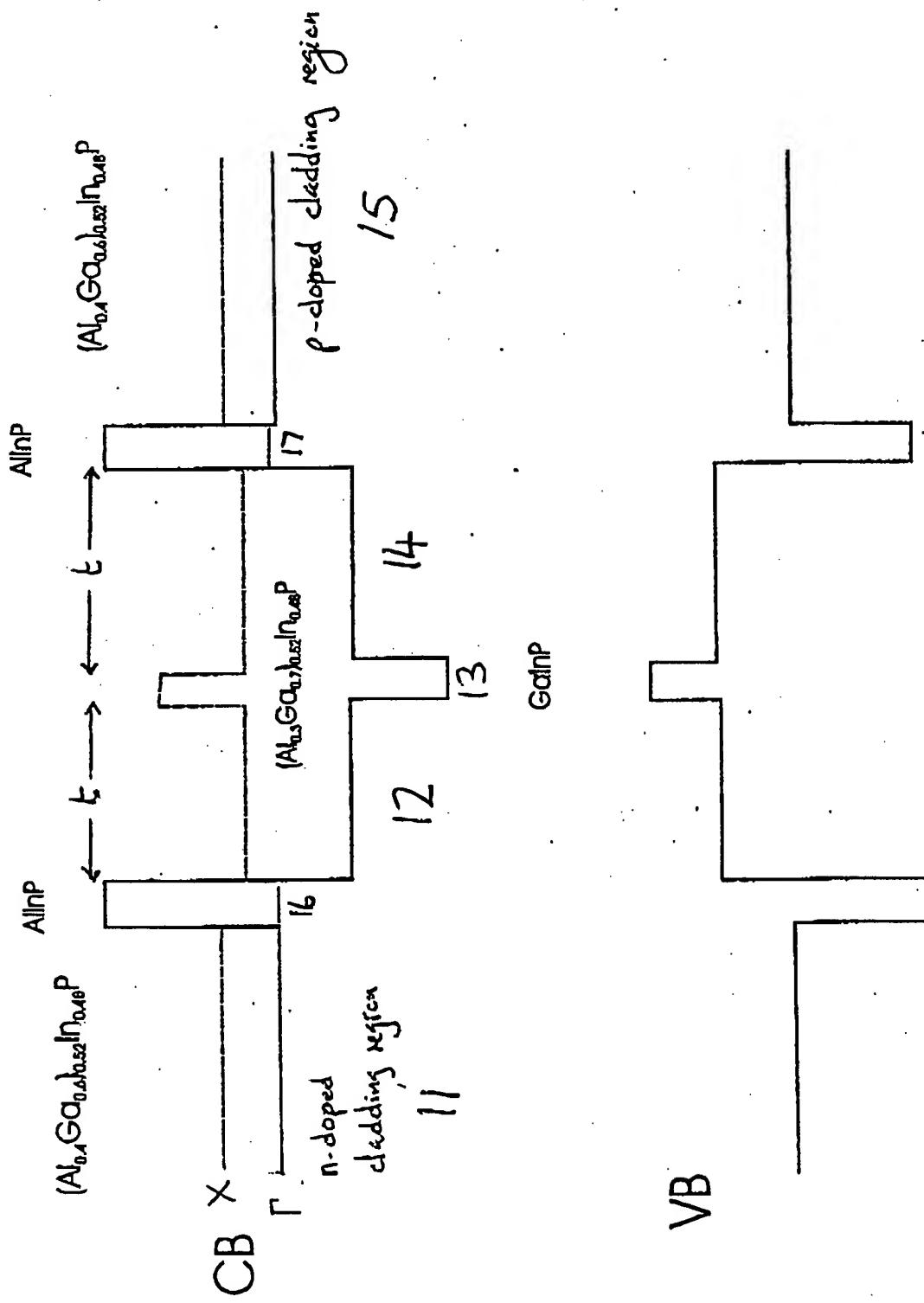
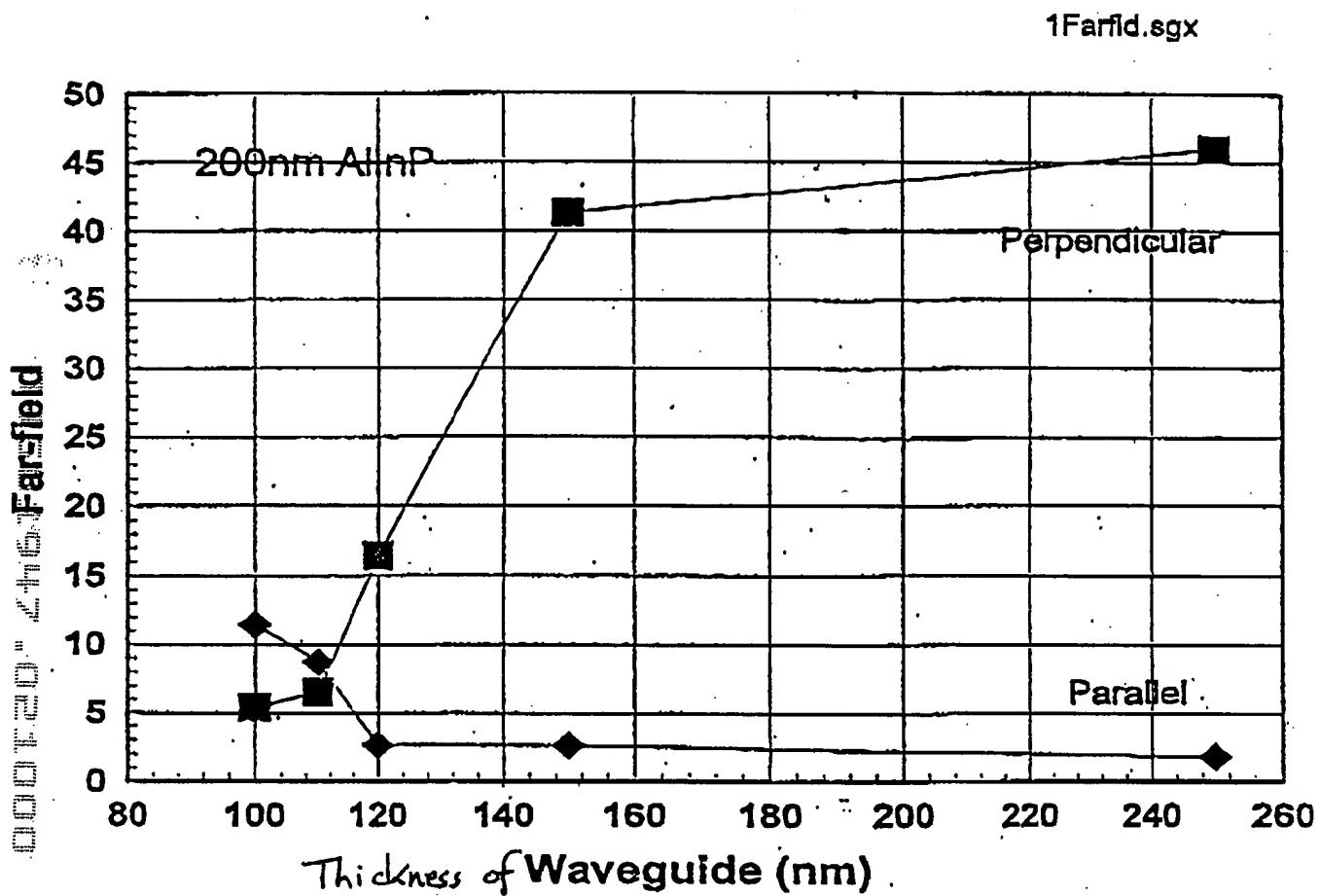


Figure 13(a)



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Figure 13C(b)

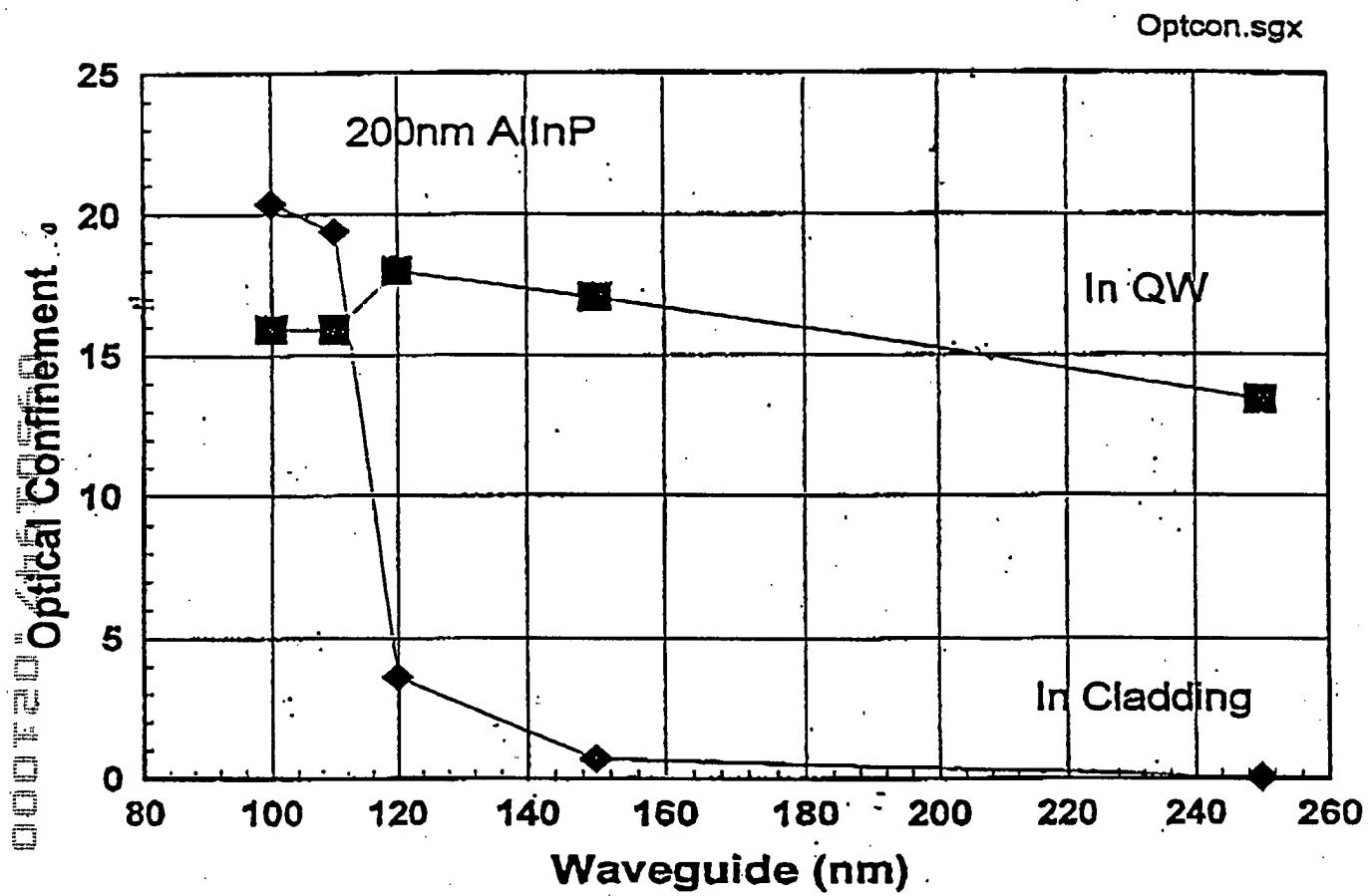


Fig. 13 (b)

Figure 14(a)

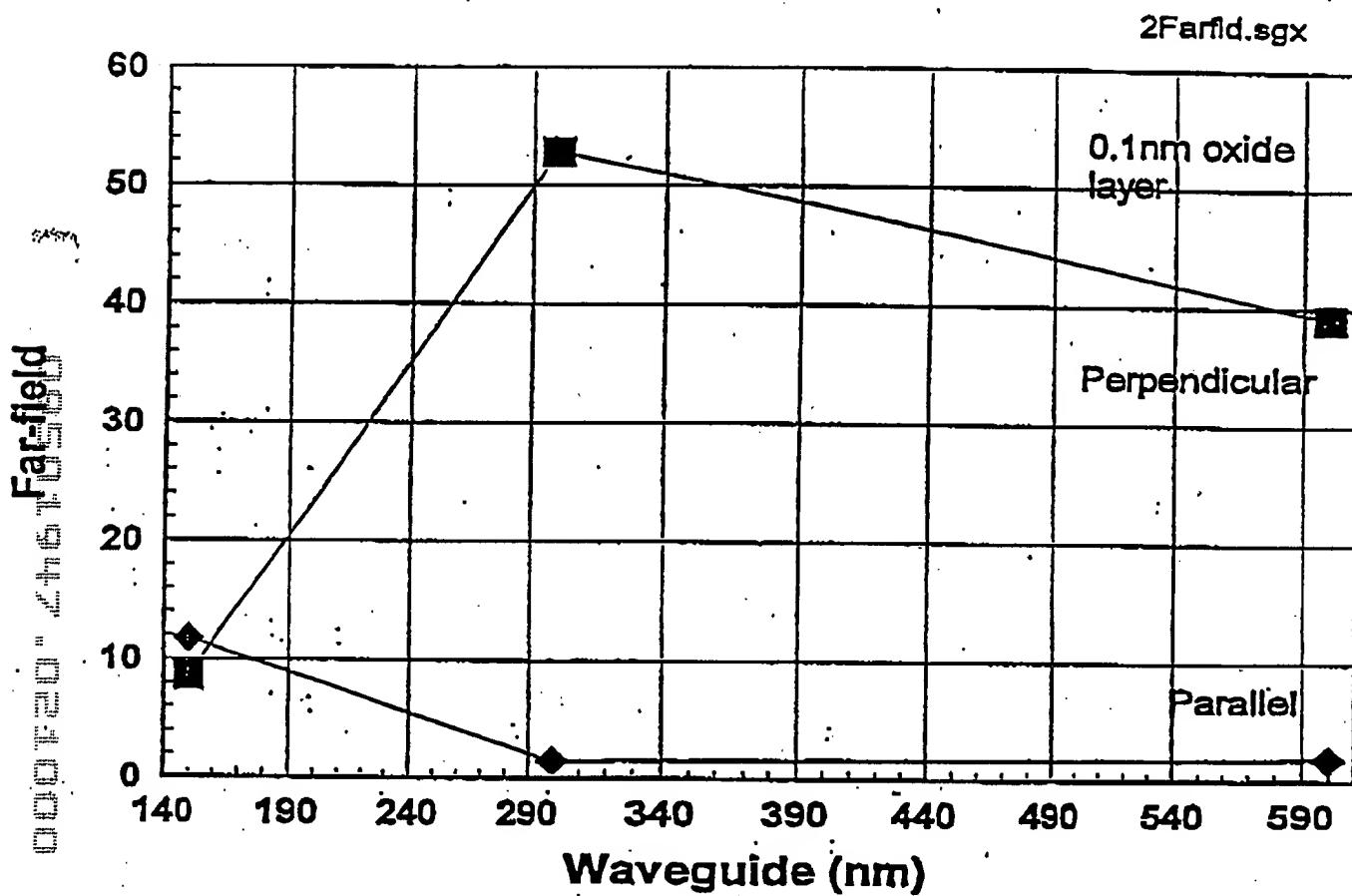


Figure 14(b)

